DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-028247
Date Inspected: 22-Aug-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1930
Location: Job Site

CWI Name:	Bernie Docena			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 13W-WK-SK1 K-plate, ABF welder Lin E Yun was observed continuing to perform 2G cover pass welding on the butt joint connection between the 30mm thick 485W longitudinal stiffener to K-plate web. The welder was noted adding more weld to the cover due to underfill that was noted and rejected by ABF QC. The welder was observed welding in the 2G (horizontal) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm E7018H4R electrode implementing Caltrans approved procedure ABF-WPS-D15-1072. The weld joint connection being welded was preheated and maintained to 200 degrees Fahrenheit using Miller Proheat 35 Induction Heating System with heater blanket put in place at the other side of the plates. During the shift, ABF QC Bernie Docena was noted monitoring the welder with measured working current of 124 amperes on the 3.2mm diameter E7018H4R electrode. The welder performed the horizontal welding on the cover of the K-plate to the 485W longitudinal stiffener until the end of shift wherein the welder completed the cover pass of the weld joint and flush grinding it at the same time.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT on the CJP welding of drop-in top deck plate splice butt joint prior to perform Magnetic Particle Testing (MT) at the following locations;

1. 13W-W2.2-@5180mm – this QA went inside the OBG and performed VT on the underside of the welded butt

joint. During VT, it was noted that the weld repairs underneath have excessive reinforcement, undercut and unacceptable surface profile due to grinding. This weld joint that turned over to QC was rejected on the basis of the surface defects just mentioned. The result of the QA VT was relayed to ABF QC John Pagliero who was at the vicinity at that time performing UT at one of the drop-in floor beams.

2. 13W-PP123.6-@950mm - this QA went inside the OBG and performed VT on the underside of the welded butt joint. During VT, it was noted that the weld joint vicinity was having notches that need to be ground. This weld joint that turned over to QC was rejected on the basis of the surface defects just mentioned. The result of the QA VT was relayed to ABF QC John Pagliero who was at the vicinity at that time performing UT at one of the drop-in floor beams.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on the CJP welding of drop-in top deck plates, longitudinal diaphragm (LD) WT12 stiffener butt joints and fillet welds. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. 13W-PP121.5-W2.5 BW1 – drop-in floor beam web splice weld cover QA verified.
2. 13W-PP121.2-@1900 – drop-in top deck plate weld cover QA verified.
3. 13W-PP121.6-@1900 – drop-in top deck plate weld cover QA verified.
4. 13W-PP121.25-W3 – WT12 LD stiffener web splice weld cover QA verified.
5. 13W-PP121.25-W3 – WT12 LD stiffener flange splice weld cover QA verified.
6. 13W-PP121.25-W3 – WT12 LD stiffener fillet weld cover QA verified.
7. 13W-PP122.75-W3 – WT12 LD stiffener fillet weld cover QA verified.

Summary of Conversations:

No significant conversation ocurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer